

July 6, 2003
Federal Communications Commission
Washington, D.C.

Subject: Docket 03-104 (Broadband over Power Line/Power Line Carrier)

Dear Commissioners:

I am writing to express my concern over the possibility that the Federal Communications Commission (FCC) may proceed with the licensing of Broadband Over Power Line (BPL)/Power Line Carrier (PLC) without due consideration of the potential that this technology would cause harmful interference to authorized users of the HF spectrum. Studies conducted in Europe, Japan, and the United States have demonstrated that BPL/PLC causes harmful interference to HF.

As a licensed amateur radio operator (NU8S), the equipment I have invested in would be rendered useless if BPL/PLC is allowed to be deployed in its current form. The problem being that it is simply an unshielded system over the power lines. Straightforward calculations support this fact.

The present FCC Part 15 limits set a peak limit of 30 microvolts/meter at 30 meters distance from the source, measured in 9 kHz bandwidth. Let's assume that we have a PLC system generating that level signal, a typical amateur receiver of 2500 Hz bandwidth, a dipole antenna at a reasonable height above ground and the power line is at -20 dBi. If that dipole is located 30 meters from the radiating source, that 30 uV/m level will result in a received signal of -64 dBm (S9 + 9dB). The radiating source will be the power lines in the house (at a minimum), so this is a very real situation. This has the potential of affecting standard radio and television Intermediate Frequency (IF) circuits, the common 'baby monitors' used by many families and countless other 'RF' devices located in the typical home.

Many amateur radio operators participate in the Amateur Radio Emergency Service (ARES) that provide emergency communication during the aftermath of tornadoes and other local disasters across the United States. We are often the first emergency communications to establish links as cell phone and other towers are often damaged in such instances.

Another well respected and used facility of Amateur Radio is with the Military Affiliated Radio System (MARS) system. Radio Amateurs play a key role in providing critical communications to loved ones and family members that are stationed overseas as well as in the United States.

Both ARES and AF MARS use HF and these services could be seriously affected by BPL/PLC.

I urge the FCC to not approve deployment of BPL/PLC without comprehensive evaluation and testing. The burden should be placed on the applicants of this technology that it does not create harmful interference to authorized users of the HF spectrum or other commercial equipment. I urge you to give this proposal due consideration and proper testing before it is released on the public. I truly understand the desire for a simple and easy means to provide 'broadband' for internet purposes, but not at the risk of making other communications methods inoperable due to the noise that will be created by unshielded poorly designed 'transmitters' with an antenna everywhere you look.

Thank you,

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